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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,929	03/25/2004	Leo E. Thompson	7512-73238-01	6889
24197 7590 01/25/2007 KLARQUIST SPARKMAN, LLP 121 SW SALMON STREET SUITE 1600 PORTLAND, OR 97204			EXAMINER KRECK, JOHN J	
			ART UNIT 3673	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/808,929

Applicant(s)

THOMPSON ET AL.

Examiner

John Kreck

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-54, 69 and 70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28-35 and 43 is/are allowed.
- 6) ☒ Claim(s) 1-27, 36-42, 44-54, 69 and 70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment dated 1/7/07 has been entered. Claims 1-54, 69, and 70 are pending.

Drawings

2. The drawings were received on 1/8/07. These drawings are approved.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 22-24 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 22 requires an additive which "aids in destroying hazardous materials"; claim 23 an additive which "aids in destroying chlorinated " organics; and claim 24 an additive which "aids in improving the durability". The specification is silent regarding what these additives are.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 69 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 69 lacks clear antecedent basis for "the at least two removable electrodes". Claim 69 is also unclear regarding the clause which begins "without using an additive material...and passing a current". Is the "passing a current" meant to be excluded from the claim? It is suggested that "and passing" should be replaced with "by passing". Interpretation of this claim is impeded by applicant's failure to point out the patentable novelty which the applicant believes the claims present (MPEP 714.04). Applicant is advised that should the claim be amended to explicitly exclude the passing a current, then it will be considered withdrawn as non elected (by original presentation).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 69 is rejected under 35 U.S.C. 102(b) as being anticipated by Meininger, et al. (U.S. Patent number 4,581,163).

Meininger plainly discloses the process including placing materials into a container; heating by passing a current; vitrifying; and discarding as called for in new claim 69. it is apparent that applicant believes that Meininger includes the use of an

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additive to lower the melting point; however no such explicit disclosure is found in Meininger. Applicant's assertions are purely speculative.

6. Claims 69 and 70 are rejected under 35 U.S.C. 102(b) as being anticipated by Hansen, et al. (U.S. Patent number 6,120,430) Note that these claims are broader than the previous claims in that they do not include the exclusion for the container formed in the ground.

Hansen plainly teaches the placing, heating, passing current, vitrifying, and discarding (discarding is given broad interpretation to include "abandoning") as called for in claim 69.

Hansen likewise discloses the placing in a container that can withstand 2000° (i.e. the ground); placing a starter path; vitrifying; and discarding as called for in claim 70.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-8,15, 17, 26, 27, 36, 44-54 are rejected under 35 U.S.C. 103(1) as being obvious over Meininger, et al. (U.S. Patent number 4,581,163) in view of Chapman (U.S. Patent number 5,443,618).

Meininger plainly discloses the process including placing materials into a container; heating until melting; and allowing the melt to cool. See col. 2, lines 48-62. Meininger lacks any disclosure of temperature, and thus fails to teach the heating to a temperature of at least about 1400°C.

Chapman (col. 5, line 10) discloses that in a similar process, a temperature in that range is needed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Meininger process to have included heating to a temperature of at least about 1400°C as called for in claim 1.

Claim 2: see col. 5, line 55.

RE claim 3: Chapman teaches temperatures in the range of 1400-2000°C.

Claim 4: see col. 2, line 48 ("optionally").

Claim 5: see fig 1, refs# 13, 23, etc.

Claim 6: see col. 2, line 62 and 5:55.

RE claim 7: Meininger lacks the removable electrodes.

Chapman(col. 8, line 15-16) teaches the use of removable electrodes in a similar process. One of ordinary skill in the art would have recognized the advantages of removable electrodes (e.g. allowing for replacement an/or reuse of the electrodes.)

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It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Meininger process to have included removable electrodes as called for in claim 7.

With regards to claim 8; Meininger lacks the starter path.

Applicant's own disclosure indicates that such starter paths are conventional (paragraph 3); thus one of ordinary skill in the art would have found a starter path obvious.

Claim 15: see col. 2, line 22.

Claim 17: see col. 2, line 21.

With regards to claim 26: Meininger lacks the claimed step of "further material is passively added to the container as the material in the container is being heated".

Chapman (e.g. figure 1, near 42, and column 5, lines 25-28) discloses passively adding material as the material in the container is being heated. One of ordinary skill in the art would have recognized that passive adding would have been advantageous, because it would prevent loss of heat (i.e. the heaped material would absorb some of the heat which would otherwise have escaped through the top). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Meininger process to have included passive adding material as called for in claim 26.

Claim 27: see col. 5, line 27.

Claim 36: see col. 4, line 10.

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With regards to claims 44-46; the term "soil" is given a broad interpretation consistent with its use in the specification, see, e.g. paragraph 14 of applicant's disclosure. Meininger teaches such materials in col. 4, lines 38-col. 5, line10.

Claim 47: see col. 2, line 51.

Claim 48: see col. 4, lines 38-col. 5, line10.

Claim 49: see col. 4, lines 38-col. 5, line10.

Claim 50: see col. 2, line 34-35.

Claim 51: see col. 2, line 34-35.

Claim 52: see col. 5, line 23.

Claim 53: see col. 5, line 23.

With regards to claim 54: Meininger lacks the claimed step of "further material is passively added to the container as the material in the container is being heated". Chapman (e.g. figure 1, near 42, and column 5, lines 25-28) discloses passively adding material as the material in the container is being heated. One of ordinary skill in the art would have recognized that passive adding would have been advantageous, because it would prevent loss of heat (i.e. the heaped material would absorb some of the heat which would otherwise have escaped through the top). It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Meininger process to have included passive adding material as called for in claim 54.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meininger and Chapman as applied to claim 15 above, and further in view of Gorka (U.S. Patent number 3,321,171)

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Meininger lacks explicit disclosure of insulation "board".

Official Notice was taken of the fact that insulation "boards" are well known, and are known to have advantages, such as ease of construction/assembly. Applicant has timely traversed this taking of Official Notice, and in response, the Gorka patent is cited as evidence supporting that fact.

One of ordinary skill in the art would have found it obvious to have further modified the Meininger process to have insulating board as called for in claim 16.

9. Claims 1, 9-13, 18-21, 25, and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meininger in view of either one of WO03/026745A1 or Spector (U.S. Patent number 3,110,557).

Meininger plainly discloses the process including placing materials into a container; heating until melting; vitrifying without removing, and discarding. See col. 2, lines 48-62.

Meininger lacks any disclosure of temperature, and thus fails to teach the heating to a temperature of at least about 1400°C.

Each of WO03/026745A1 and Spector teach similar processes in which the temperature reaches at least 1400°C.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Meininger process to have included heating to a temperature of at least about 1400°C as called for in claim 1, since the prior art teaches that such temperatures are required.

Re claim 9: Meininger lacks any disclosure of temperature, and thus fails to teach the container which can withstand 2000°C.

Each of WO03/026745A1 and Spector teach similar processes in which the temperature reaches 2000°C. One of ordinary skill in the art would have been aware that using a container which can withstand such temperatures is desirable and obvious, in order to prevent catastrophic failure.

Claim 10: see Meininger col. 3, lines 19-20.

With regards to claim 11: Meininger discloses the electrodes "in the vicinity of the furnace lining" (col. 4, lines 9-10). This suggests to one of ordinary skill in the art that the device is not connected to the container.

Claim 12: see Meininger col. 2, lines 51.

Claim 13: see Meininger col. 5, lines 53-55.

Claim 18: see Meininger col. 4, line 5.

Claim 19: see Meininger col. 4, lines 42-43.

With regards to claim 20: Applicant's own disclosure indicates that such additives are conventional (paragraph 3); thus one of ordinary skill in the art would have found such additives obvious.

Claim 21: see Meininger col. 5, lines 1-5.

With regards to claim 25: each of WO03/026745A1 and Spector teach such temperatures.

Regarding new claim 70:

Meininger plainly discloses the process including placing materials into a container; passing a current; vitrifying; and discarding. Meininger lacks any disclosure of temperature, and thus fails to explicitly disclose the container that can withstand temperature of up to 2000°. Meininger also lacks the placing the starter path. Applicant's own disclosure indicates that such starter paths are conventional (paragraph 3); thus one of ordinary skill in the art would have found a starter path obvious. With regards to the container that can withstand temperature of up to 2000°: Each of WO03/026745A1 and Spector teach similar processes in which the temperature reaches 2000°C. One of ordinary skill in the art would have been aware that using a container which can withstand such temperatures is desirable and obvious, in order to prevent catastrophic failure.

10. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meininger and Campbell as applied to claims above, and further in view of Hansen, et al. (U.S. Patent number 6,120,430).

Meininger lacks the vessels. Hansen teaches that in a similar process, a mixture of waste drums and soil (col. 4, lines 57-59) can be treated. One of ordinary skill in the art would have recognized the advantages of treating waste in vessels (drums) since the waste would not have to be removed, thereby reducing risk of contamination. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the Meininger process to have included material in vessels and soil as called for in claims 37-39.

11. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meininger and WO03/026745A1 or Spector (U.S. Patent number 3,110,557) as applied to claim 9, and further in view of Hansen, et al. (U.S. Patent number 6,120,430).

Meininger lacks the vessels. Hansen teaches that in a similar process, a mixture of waste drums and soil (col. 4, lines 57-59) can be treated. One of ordinary skill in the art would have recognized the advantages of treating waste in vessels (drums) since the waste would not have to be removed, thereby reducing risk of contamination. It would have been obvious to one of ordinary skill in the art at the time of the invention to have further modified the Meininger process to have included material in vessels and soil as called for in claims 40-42.

12. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Meininger and WO03/026745A1 or Spector (U.S. Patent number 3,110,557) as applied to claim 9, and further in view of Powell, et al. (U.S. Patent number 5,678,237).

Meininger lacks the removing vitrified material.

Powell teaches a similar process, which includes removing the vitrified material. One of ordinary skill in the art would have found it obvious to have further modified the Meininger process to have included removing, in order to allow for reuse of the container.

13. Claims 28-35, and 43 are allowed.

Response to Arguments

14. Applicant's arguments filed 1/8/07 have been fully considered but they are not persuasive.

- a. 35 USC 112: applicant alleges that the example additives are listed in paragraph 26. No such examples are found for the additives listed in claims 22-24.
- b. 35USC102: these arguments are largely moot in view of the new grounds of rejection. It is noted that applicant has not asserted that the cited references lack any of the features relied upon in the 102 rejection.
- c. 35USC103 –claim 16: Applicant has timely traversed this taking of Official Notice, and in response, the Gorka patent is cited as evidence supporting that fact.
- d. 35USC103—claim 3: Applicant asserts that the Meininger device “could not withstand the recited temperatures”. This is not persuasive, Meininger includes no recitation of the temperature of heating nor recitation of additives to reduce melting temperature; applicant’s comments are mere speculation. One skilled in the art would have known how to make the Meininger device so that it could withstand the recited temperatures. It is understood that applicant bases these arguments on a line of reasoning that depends on the alleged unsuitability of sheet metal with 100mm of insulation. It is noteworthy that applicant’s own invention is also disclosed as being made from sheet metal, with an –

undisclosed—thickness of insulation. Assuming, arguendo, that the disclosed thickness of insulation (in Meininger) is not suitable for a temperature of 1500°, it is well within the knowledge of one of ordinary skill in the art to adjust the thickness of insulation to suit the task. Finally, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986)

- e. 35USC103—claim 7: applicant has made no further substantive arguments regarding the obviousness of claim 7.
- f. 35USC103—claim 8: applicant has made no further substantive arguments regarding the obviousness of claim 8. It is noteworthy that applicant failed to traverse the use of admitted prior art of the “starter path”.
- g. 35USC103—claim 26: Applicant has asserted that the claim limitation is not met by the Chapman teaching, allegedly because the claimed adding is done prior to melting, stating “No material is added to the container during melting” in an attempt to differentiate the claim. For convenience, the claim language is repeated below:

“further material is passively added to the container as the material in the container is being heated.” (emphasis added)

this flatly contradicts applicant’s statements. It is apparent that applicant asserts that “passive feeding” has special meaning. The words of the claim must

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be given their plain meaning unless the plain meaning is inconsistent with the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1372, 69 USPQ2d 1857 (Fed. Cir. 2004). The plain meaning of the claim does not appear to be inconsistent with the specification (e.g. at paragraph 17, last sentence). It is noted that claim 26 does not recite "passive feeding"; however, even if applicant were to use that language, limitations from the specification would not be read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Applicant is advised of the advantages of "step plus function" limitations (MPEP2181)

- h. 35USC103—claim 54: see above at (g)
- i. 35USC103—claim 9: applicant reiterates the argument that the Meininger apparatus is incompatible with temperatures up to 2000°C. See above at (d)
- j. 35USC103—claims 10-13 and 18-21: applicant has made no further substantive arguments regarding the obviousness of these claims.
- k. 35USC103—claim 25: applicant has made no further substantive arguments regarding the obviousness of claim 25.
- l. 35USC103—claims 37-39: applicant has asserted that Hansen is not available as prior art under 35USC103(c). Applicant is reminded that the Hansen patent issued on 19 September 2000, more than one year prior to the filing date of the instant application, and is therefore available as prior art under 35USC102(b). Section 103(c) does not apply to this rejection. Applicant has

made no further substantive arguments regarding the obviousness of these claims.

m. 35USC103—claims 40-42: applicant has asserted that Hansen is not available as prior art under 35USC103(c). Applicant is reminded that the Hansen patent issued on 19 September 2000, more than one year prior to the filing date of the instant application, and is therefore available as prior art under 35USC102(b). Section 103(c) does not apply to this rejection. In response to applicant assertion that the cited references lack the placing soil into voids between the vessels: this is deemed to be taught and/or suggested by the explicit disclosure on col. 4, line 56 of mixing soil with drums.

n. 35USC103—claim 14: applicant asserts that the rejection is improper because Powell allegedly does not teach removing the vitrified material from the container. Powell teaches at least 3 containers: See column 13 line 35-67: the container which meets the claim limitation is defined, in part, by the transfer lock, through which the waste (in the smaller containers) is removed.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

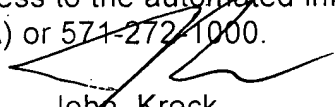
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Kreck whose telephone number is 571-272-7042. The examiner can normally be reached on Mon-Thurs 530am-2pm; Fri: telework.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patricia Engle can be reached on 571-272-6660. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John Kreck
Primary Examiner
Art Unit 3673

18 january 2007